

# Service Manual

## AUTOMOTIVE ELECTRONICS

# MAZDA

| VEHICLE | DESTINATION | PRODUCED AFTER | MAZDA PARTS NO. | ID CODE | MATSUSHITA MODEL NO. |
|---------|-------------|----------------|-----------------|---------|----------------------|
| PREMACY | Europe      | Apr., 1999     | CB01 66 9C0     | -       | CQ-LM0920A           |

### AM/FM MPX ELECTRONIC TUNING RADIO with stereo cassette tape player CD Player Controller and CD Changer Controller



## SPECIFICATIONS\*

### General

Power Supply : DC 12V (11V~16V)  
Test Voltage 13.2V,  
Negative Ground

Current Consumption : Less than 4.0A  
Maximum Power Output : 25W×4 (at 4 Ω)  
Speaker Impedance : 4 Ω

### UKW Stereo Radio

Frequency Range : 87.5~108.0MHz  
Usable Sensitivity :  $8 \pm 6$  dB (μV) (S/N 30 dB)  
Stereo Separation :  $33^{+22}_{-13}$  dB  
Seek Sensitivity :  $24 \pm 5$  dB (μV)  
Signal to Noise Ratio :  $62 \pm 7$  dB

### MW Radio

Frequency Range : 531~1,602kHz  
Usable Sensitivity :  $24 \pm 6$  dB (μV) (S/N 20 dB)  
Signal to Noise Ratio : More than 45dB

### Cassette Player

Reproduction System : 4-track, 2-program stereo  
Tape Speed : 4.76cm/ sec  
Frequency Response : 30~14,000Hz  
Wow and Flutter : 0.12% (WRMS)  
Signal to Noise Ratio : 55 dB (IHF, A)

### Dimensions\*\*

: 178(W)×110(H)×160(D)mm

### Weight\*\*

: 1.5kg

\* Specifications and design are subject to modification without notice due to improvements.

\*\* Dimensions and weight shown are approximate.

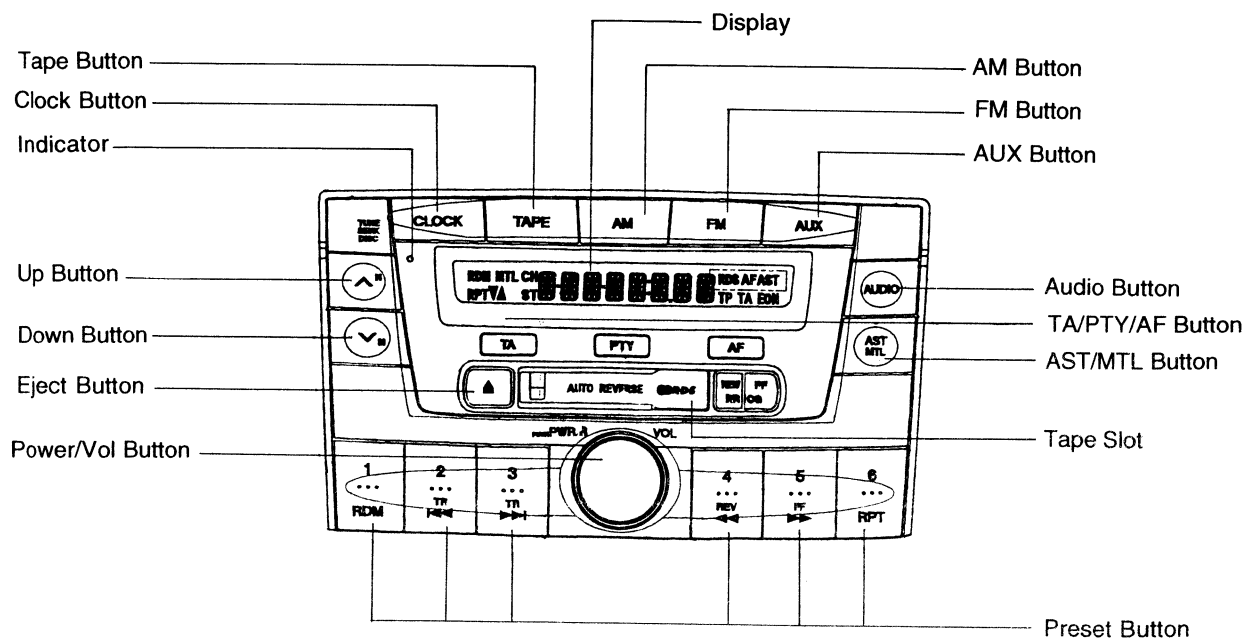
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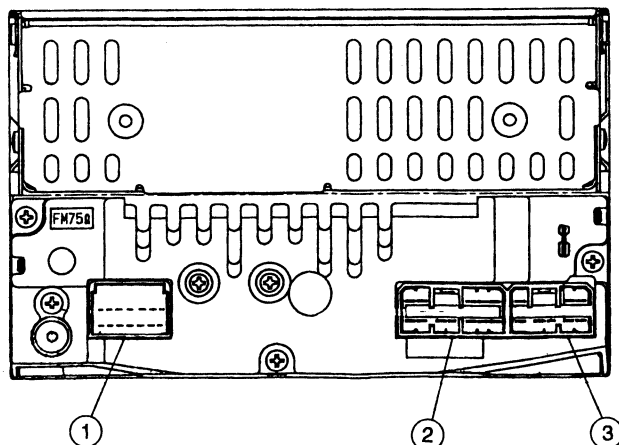
## FEATURES

- PLL (Phase Locked Loop) synthesized tuning.
- 6-station preset (MW, UKW1, UKW2)
- Seek tuning function.
- Scan tuning function.
- RDS function.
- CD player control.
- CD changer control.
- Clock function.
- Removable face plate.

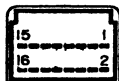
## NAME AND FUNCTION OF EACH PARTS



## REAR VIEW AND CONNECTORS



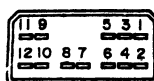
①



CN702 16Pin Connector

- |                     |            |
|---------------------|------------|
| 1. CD Rch ⊕ Input   | (Rch ⊕)    |
| 2. Signal Ground    | (S.GND)    |
| 3. CD Lch ⊕ Input   | (Lch ⊕)    |
| 4. No Connection    | (NC)       |
| 5. No Connection    | (NC)       |
| 6. No Connection    | (NC)       |
| 7. BUS Ground       | (BUS GND)  |
| 8. BUS Line         | (BUS LINE) |
| 9. Power Supply ACC | (ACC)      |
| 10. Power Ground    | (GND)      |
| 11. Power Supply ⊕B | (⊕B)       |
| 12. System Mute     | (MUTE)     |
| 13. ⊕TNS            | (⊕TNS)     |
| 14. ⊖ILLUMI         | (⊖ILL)     |
| 15. No Connection   | (NC)       |
| 16. No Connection   | (NC)       |

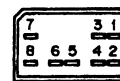
②



CN701 12Pin Connector

- |                           |                |
|---------------------------|----------------|
| 1. Power Supply ACC       | (ACC)          |
| 2. H/F. Telephone Mute    | (H/F TEL MUTE) |
| 3. Power Supply ⊕B        | (⊕B)           |
| 4. Antenna Switch         | (ANT.SW)       |
| 5. ⊕TNS                   | (⊕TNS)         |
| 6. ⊖ILLUMI                | (⊖ILL)         |
| 7. Steering Switch        | (ST.SW)        |
| 8. Steering SW (MODE)     | (ST.SW2)       |
| 9. Front Speaker Left ⊕   | (F-SP.LH ⊕)    |
| 10. Front Speaker Left ⊖  | (F-SP.LH ⊖)    |
| 11. Front Speaker Right ⊕ | (F-SP.RH ⊕)    |
| 12. Front Speaker Right ⊖ | (F-SP.RH ⊖)    |

③



CN701 8Pin Connector

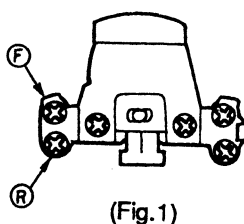
- |                          |             |
|--------------------------|-------------|
| 1. Rear Speaker, Left ⊕  | (R-SP.LH ⊕) |
| 2. Rear Speaker, Left ⊖  | (R-SP.LH ⊖) |
| 3. No Connection         | (NC)        |
| 4. AMP. Control          | (AMP CONT)  |
| 5. Rear Speaker, Right ⊕ | (R-SP.RH ⊕) |
| 6. Rear Speaker, Right ⊖ | (R-SP.RH ⊖) |
| 7. No Connection         | (NC)        |
| 8. No Connection         | (NC)        |

## ALIGNMENT INSTRUCTIONS

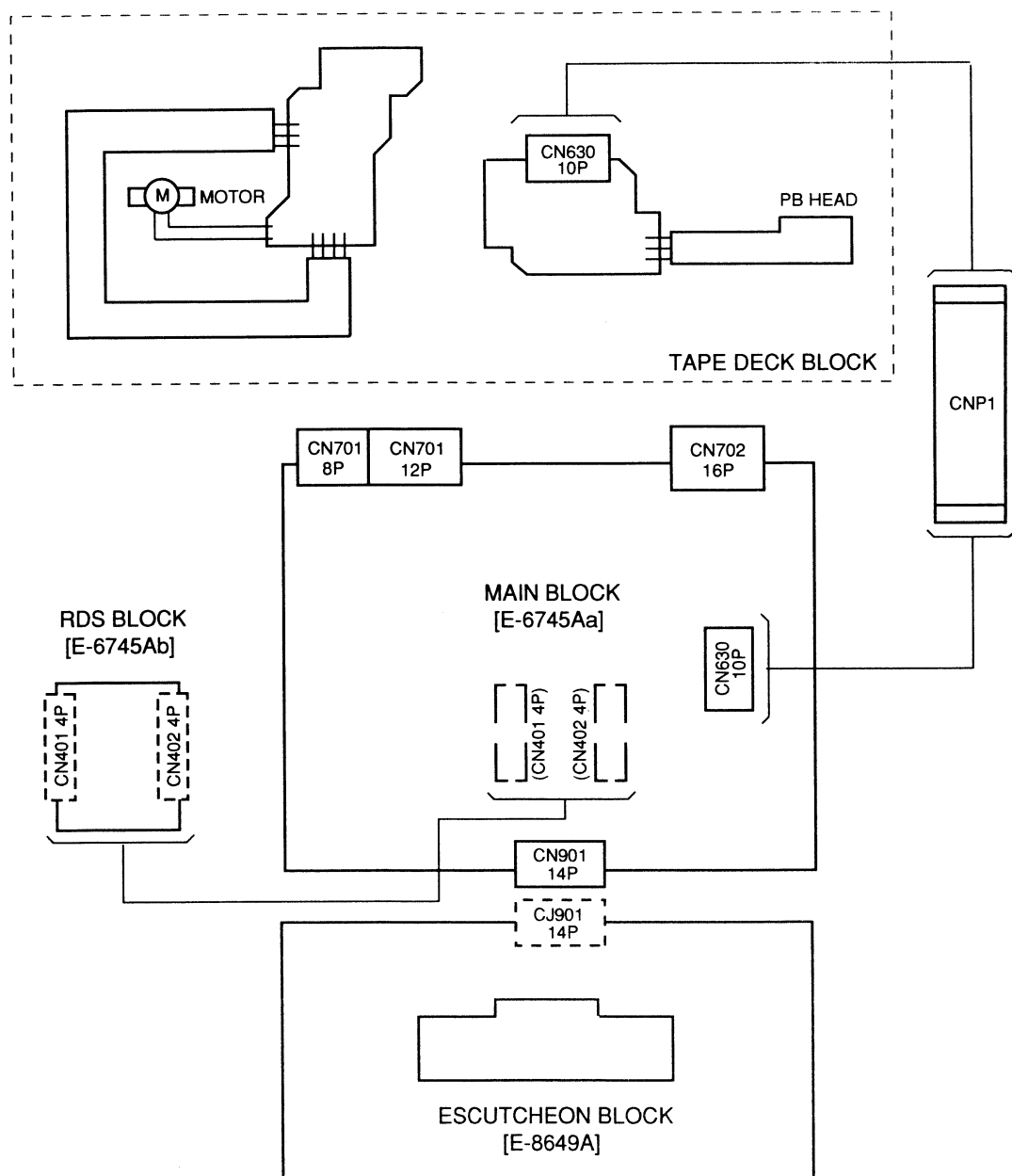
### 1. HEAD AZIMUTH ALIGNMENT

| Step | Alignment Item                 | test Tape | Input Terminal | VTVM Connection   | Adjust                                                  | Remarks                                                                                               |
|------|--------------------------------|-----------|----------------|-------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1    | Head Azimuth (A side)          | TCC-153   | Play back Head | Speaker Terminals | Head Azimuth Adjustment Screw $\textcircled{F}$ (Fig.1) | Adjust for maximum output (Use $\oplus$ Screw)                                                        |
| 2    | Head Azimuth (B side)          | TCC-153   | Play back Head | Speaker Terminals | Head Azimuth Adjustment Screw $\textcircled{R}$ (Fig.1) | Adjust for maximum output (Use $\oplus$ Screw)                                                        |
| 3    | Head Azimuth (Confirm: A Side) | TCC-153   | Play back Head | Speaker Terminals | —                                                       | Confirm the level difference $\textcircled{F} / \textcircled{R}$ and L/R $0 \pm 4\text{dB}$ (at 8kHz) |

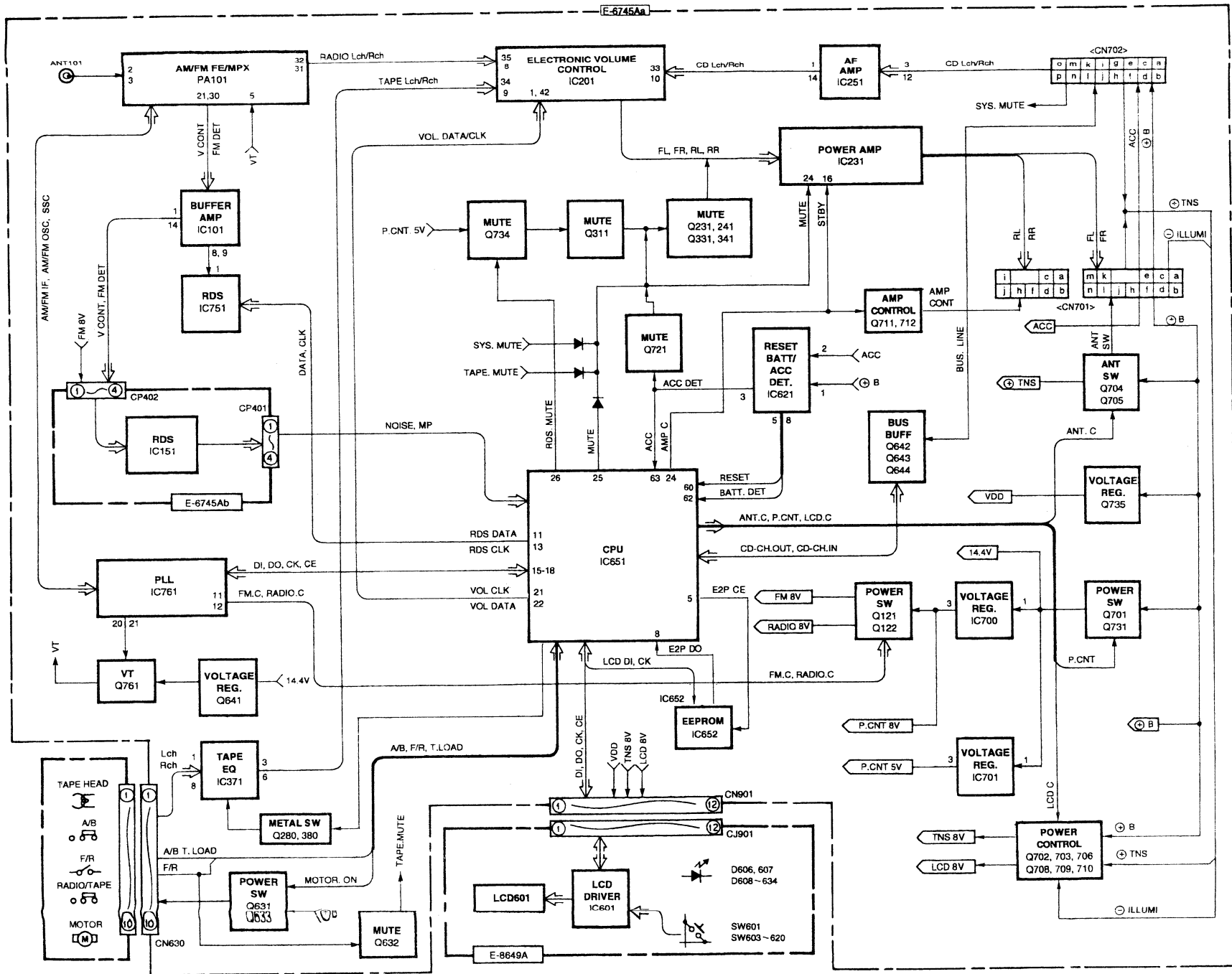
Note: After the above adjustment, apply bonding agent to the adjustment screw.



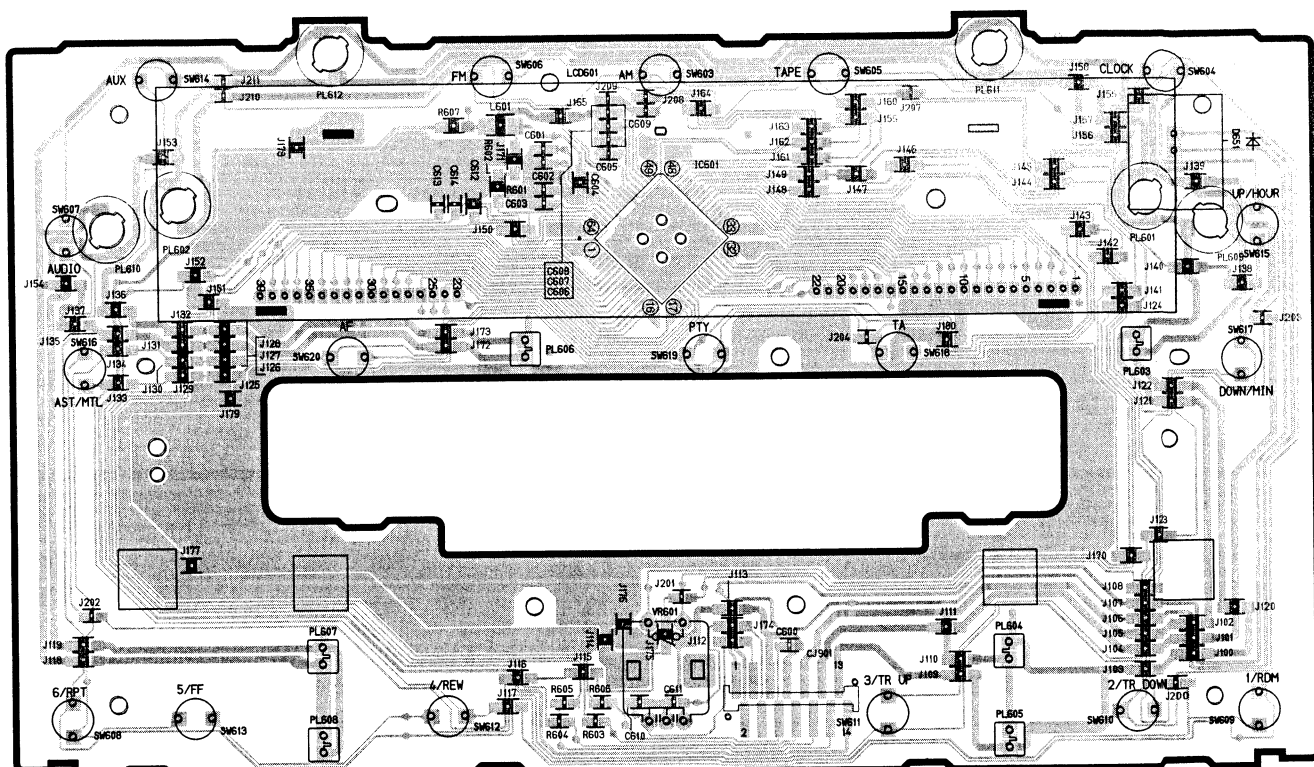
## WIRING CONNECTION



# BLOCK DIAGRAM MAZDA PART No. CB01 66 9C0 MODEL CQ-LM0920A

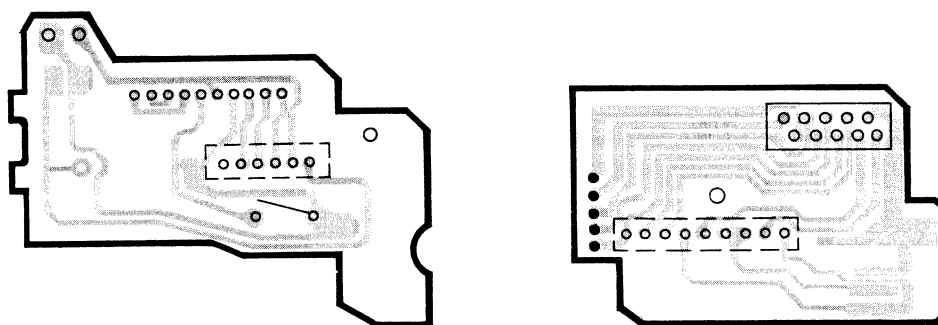


# WIRING DIAGRAM (ESC Block) MAZDA PART No. CB01 66 9C0 MODEL CQ-LM0920A

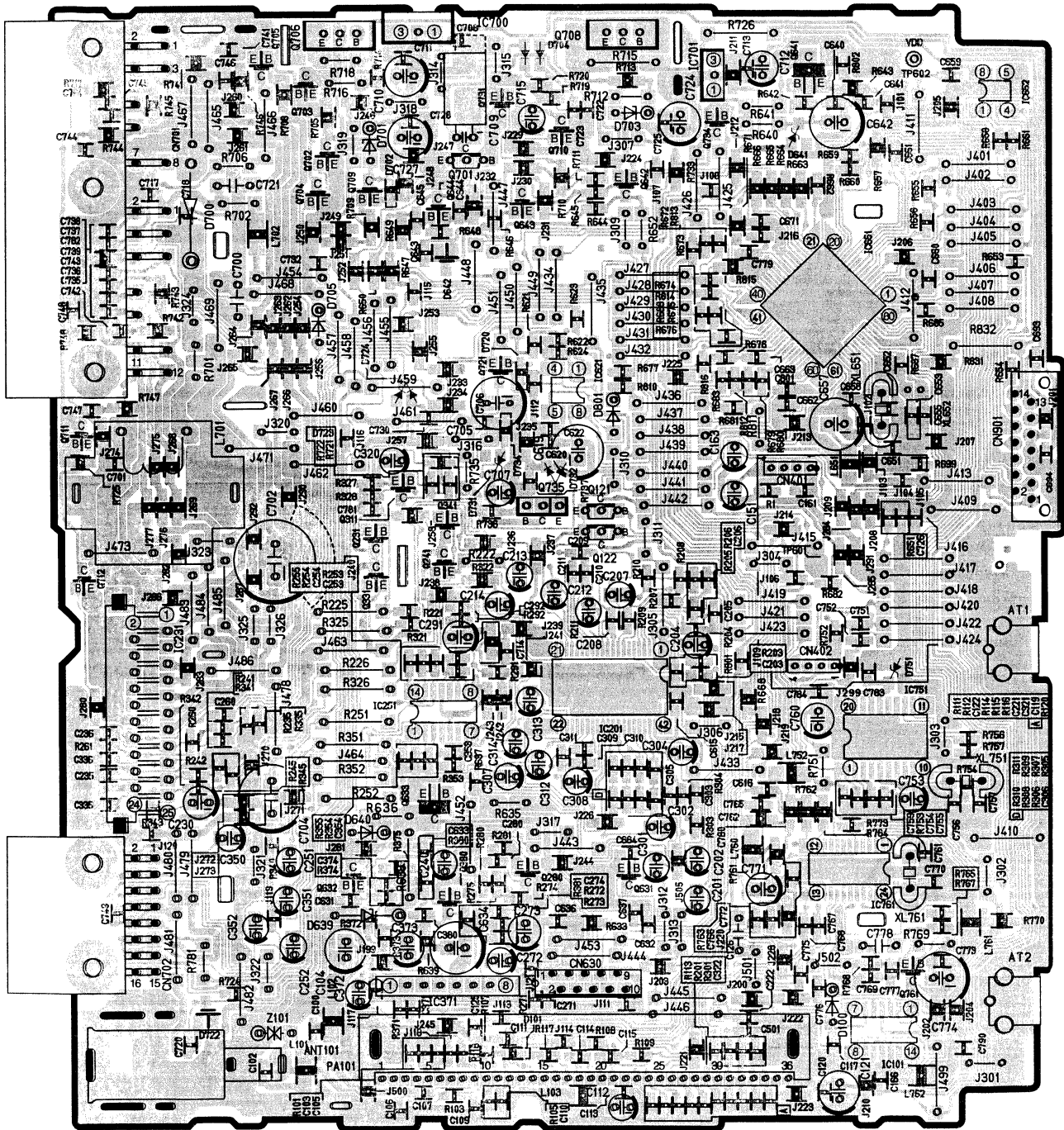


[E-8649A]

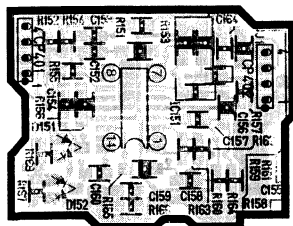
## WIRING DIAGRAM (Tape Block)



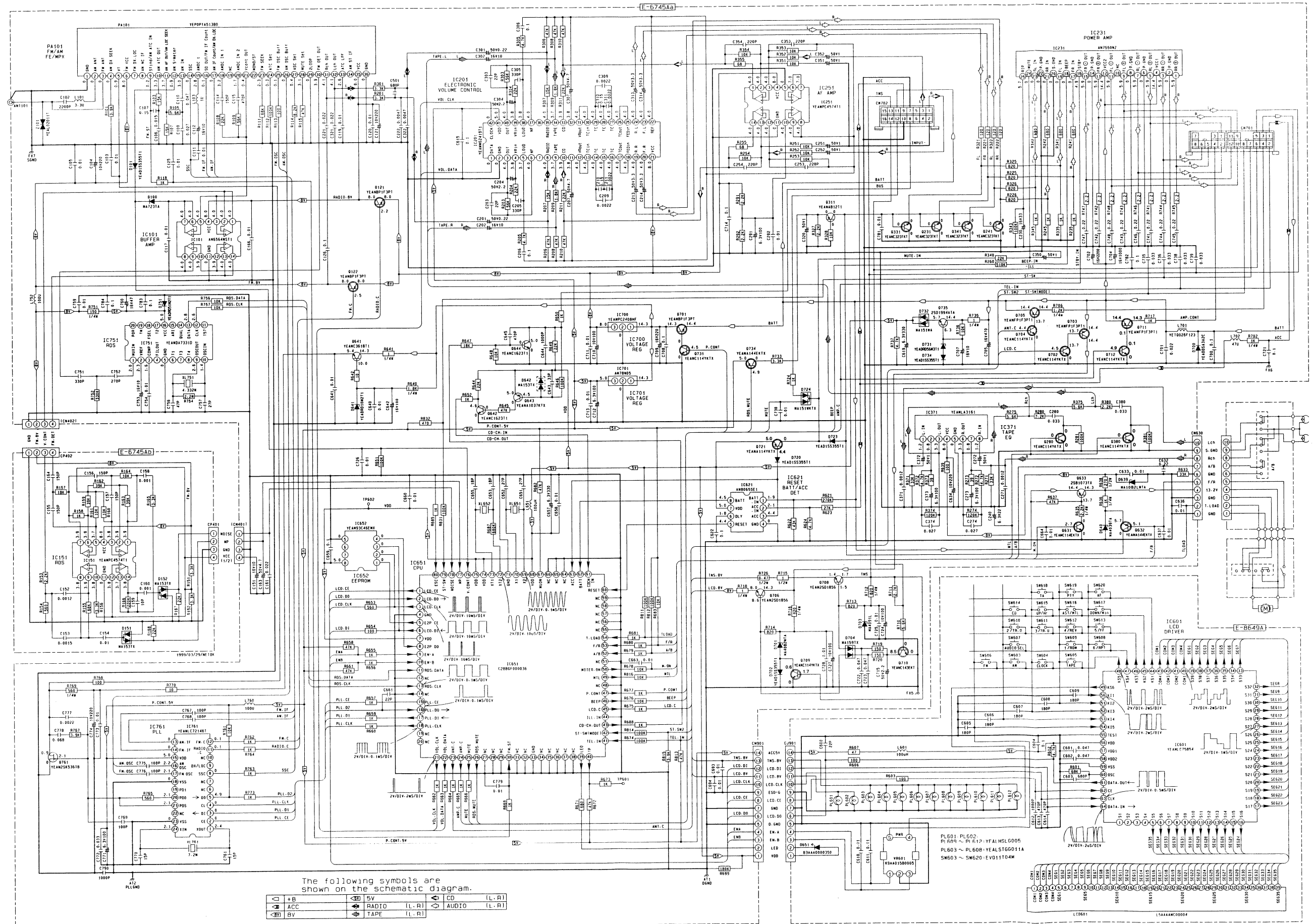
**WIRING DIAGRAM (Main,RDS, Block)** MAZDA PART No. CB01 66 9C0  
MODEL CQ-LM0920A



[E-6745Aa]



[E-6745Ab]



## TERMINALS DESCRIPTION

## IC BLOCK DIAGRAM (1)

## ■IC651 C2BBGF000036

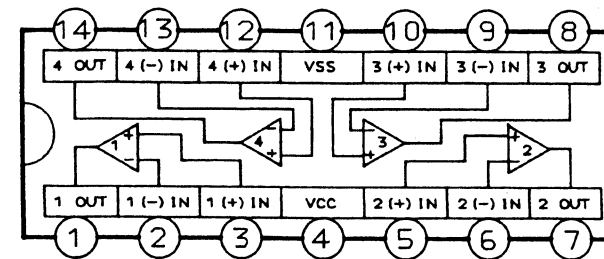
| Pin No. | Signal Name  | Description                | I/O | Vol. (V) |
|---------|--------------|----------------------------|-----|----------|
| 1       | LCD-CE       | LCD chip enable            | O   | 0        |
| 2       | LCD-DO       | LCD data input             | I   | 1.9      |
| 3       | LCD-CLK      | LCD clock                  | O   | 0        |
| 4       | GND          | Ground                     | —   | 0        |
| 5       | E2P CE       | EEPROM chip enable         | O   | 0        |
| 6       | LCD-DI       | LCD data output            | O   | 0        |
| 7       | VDD          | +5V power Supply           | —   | 0        |
| 8       | E2P D0       | EEPROM data input          | I   | 0        |
| 9       | EN-A         | Rotary Encoder input A     | I   | 0        |
| 10      | EN-B         | Rotary Encoder input B     | I   | 0        |
| 11      | RDS-DATA     | RDS data input             | I   | 2.5      |
| 12      | NC           | (Connecting to ground)     | —   | —        |
| 13      | RDS-CLK      | RDS clock input            | I   | 2.6      |
| 14      | NC           | (Connecting to ground)     | —   | 0        |
| 15      | PLL-CE       | PLL Controller chip enable | O   | 0        |
| 16      | PLL-DO       | PLL data input             | I   | 5.0      |
| 17      | PLL-DI       | PLL data output            | O   | 0        |
| 18      | PLL-CLK      | PLL clock output           | O   | 0        |
| 19      | NC           | No connection              | —   | —        |
| 20      | NC           | No connection              | —   | —        |
| 21      | VOL-CLK      | Electronic Volume clock    | O   | 0        |
| 22      | VOL-DATA     | Electronic Volume data     | O   | 0        |
| 23      | ANT-C        | Antenna power control      | O   | 4.9      |
| 24      | AMP-C        | EXT.amp power control      | O   | 4.9      |
| 25      | MUTE         | Mute Control               | O   | 4.9      |
| 26      | RDS-MUTE     | RDS mute output            | O   | 4.9      |
| 27      | NC           | (Connecting to ground)     | —   | 0        |
| 28      | NC           | (Connecting to ground)     | —   | 0        |
| 29      | NC           | (Connecting to ground)     | —   | 0        |
| 30      | FM ST        | FM stereo detection        | I   | 0.2      |
| 31      | NC           | (Connecting to ground)     | —   | 0        |
| 32      | NC           | (Connecting to ground)     | —   | 0        |
| 33      | GND          | Ground                     | —   | 0        |
| 34      | NC           | (Connecting to ground)     | —   | 0        |
| 35      | NC           | (Connecting to ground)     | —   | 0        |
| 36      | NC           | (Connecting to ground)     | —   | 0        |
| 37      | NC           | (Connecting to ground)     | —   | 0        |
| 38      | NC           | (Connecting to ground)     | —   | 0        |
| 39      | LED          | Security LED control       | O   | 3.6      |
| 40      | TP           | Test point                 | O   | 4.8      |
| 41      | TEL-IN       | Telephone mute             | I   | 4.4      |
| 42      | ST-SW (MODE) | Steering switch            | I   | 0        |
| 43      | CD-CH-OUT    | Bus data output            | O   | 0        |
| 44      | ILL-IN       | (Connecting to ground)     | —   | 0        |
| 45      | LCD-C        | LCD illumi.control         | O   | 4.9      |
| 46      | BEEP         | Buzzer output              | O   | 0        |
| 47      | P-CONT       | System power control       | O   | 4.9      |
| 48      | NC           | (Connecting to ground)     | —   | 0        |
| 49      | MTL          | Metal tape selection       | O   | 0        |
| 50      | MOTOR-ON     | Tape motor control         | O   | 4.9      |

| Pin No. | Signal Name | Description                  | I/O | Vol. (V) |
|---------|-------------|------------------------------|-----|----------|
| 51      | NC          | (Connecting to ground)       | —   | 0        |
| 52      | A/B         | Tape side detection          | I   | 1.2      |
| 53      | F/R         | tape FF/REW detection        | I   | 5.0      |
| 54      | T-LOAD      | Tape load detection          | I   | 0        |
| 55      | NC          | (Connecting to ground)       | —   | 0        |
| 56      | NC          | (Connecting to ground)       | —   | 0        |
| 57      | NC          | (Connecting to ground)       | —   | 0        |
| 58      | NC          | (Connecting to ground)       | —   | 0        |
| 59      | NC          | (Connecting to ground)       | —   | 0        |
| 60      | RESET       | Reset input                  | I   | 4.6      |
| 61      | CD-CH-IN    | Bus data input               | I   | 4.7      |
| 62      | BATT        | Battery detection            | I   | 4.6      |
| 63      | ACC         | Acc detection                | I   | 4.6      |
| 64      | NC          | (Connecting to ground)       | —   | 0        |
| 65      | NC          | (Connecting to ground)       | —   | 0        |
| 66      | NC          | (Connecting to ground)       | —   | 0        |
| 67      | MUON        | (Connecting to Vcc)          | —   | 4.8      |
| 68      | VDD         | +5V power Supply             | —   | 4.9      |
| 69      | X2          | Crystal oscillator           | —   | 2.4      |
| 70      | X1          | Crystal oscillator           | —   | 1.3      |
| 71      | GND         | Ground                       | —   | 0        |
| 72      | XT2         | Crystal oscillator           | —   | 2.6      |
| 73      | XT1         | Crystal oscillator           | —   | 0.7      |
| 74      | VDD         | +5V power Supply             | —   | 4.9      |
| 75      | VDD         | +5V power Supply             | —   | 4.9      |
| 76      | VCONT       | Radio Signal detection       | I   | 0        |
| 77      | MP          | Multi-path detection         | I   | 0        |
| 78      | NOISE       | Adjustment station detection | I   | 1.4      |
| 79      | ST-SW       | Steering switch input        | I   | 4.6      |
| 80      | ESC         | Escutheon Detection          | I   | 4.9      |

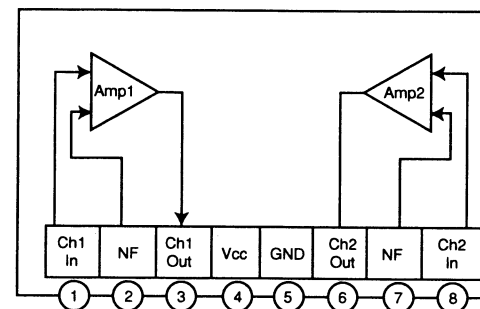
## ■IC651 C2BBGF000036

| Pin NO. | Port    | Discription               | I/O | Volt(V) |
|---------|---------|---------------------------|-----|---------|
| 1~4     | S1~S4   | Not Used                  | —   | —       |
| 5~39    | S5~S39  | LCD Segment output        | O   | 2.5     |
| 40~43   | COM1~4  | LCD Common output         | O   | 2.5     |
| 44~49   | KS1~KS6 | Key scan signal           | O   | 0.9     |
| 50~54   | KI1~KI5 | Key data input            | I   | 0       |
| 55      | TEST    | (Connect to ground)       | —   | 0       |
| 56      | VDD     | +5V Power Supply          | —   | 4.9     |
| 57      | VDD1    | Ground hthrough capacitor | —   | 3.3     |
| 58      | VDD2    | Ground hthrough capacitor | —   | 1.7     |
| 59      | VSS     | Ground                    | —   | 0       |
| 60      | OSC     | CR Oscillator             | —   | 3.8     |
| 61      | DO      | Key data out put          | O   | 4.4     |
| 62      | CE      | Chip enable               | I   | 0       |
| 63      | CL      | LCD clock                 | I   | 0       |
| 64      | DI      | LCD data input            | I   | 0       |

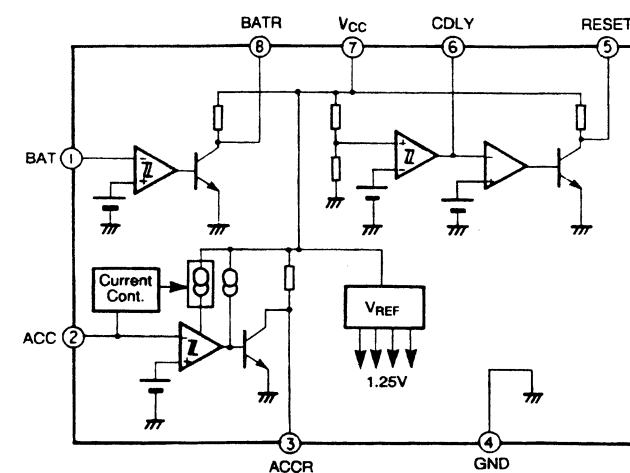
## ■IC151,251 YEAMPC4574T1 [E-6745A]



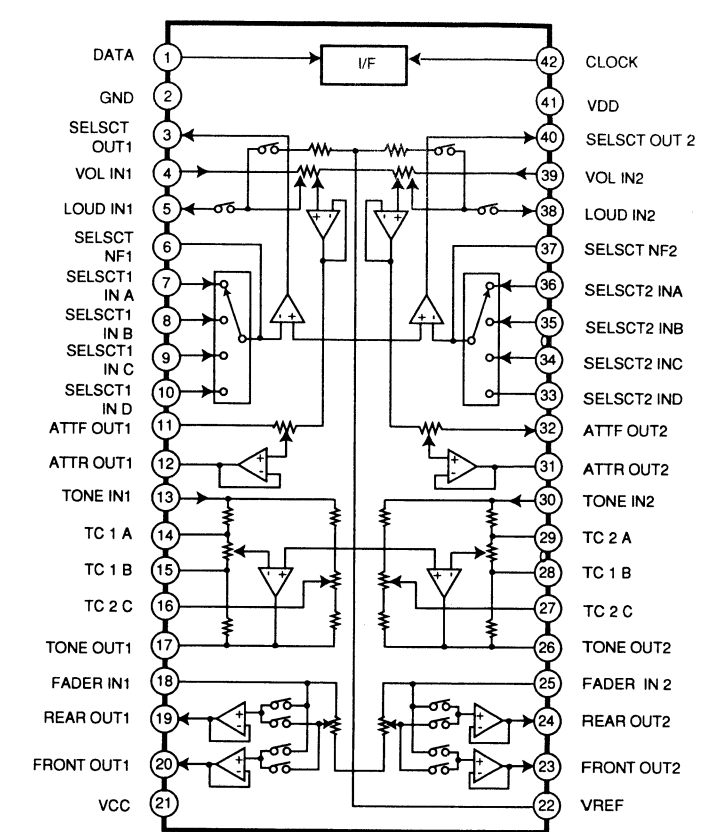
## ■IC371 YEAMLA3161 [E-6745A]



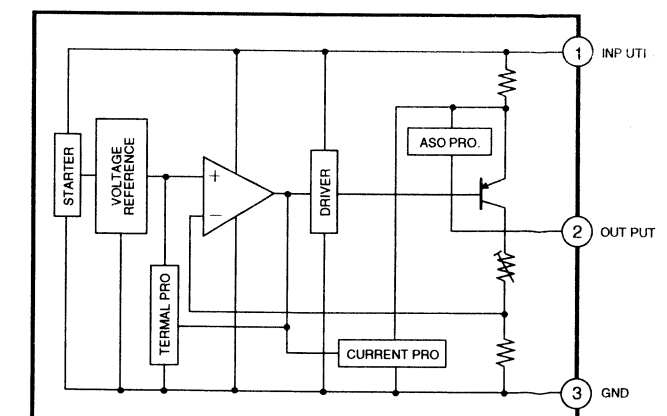
## ■IC621 AN8065SE1 [E-6745A]



## ■IC201 YEAMM62419T1 [E-6745A]

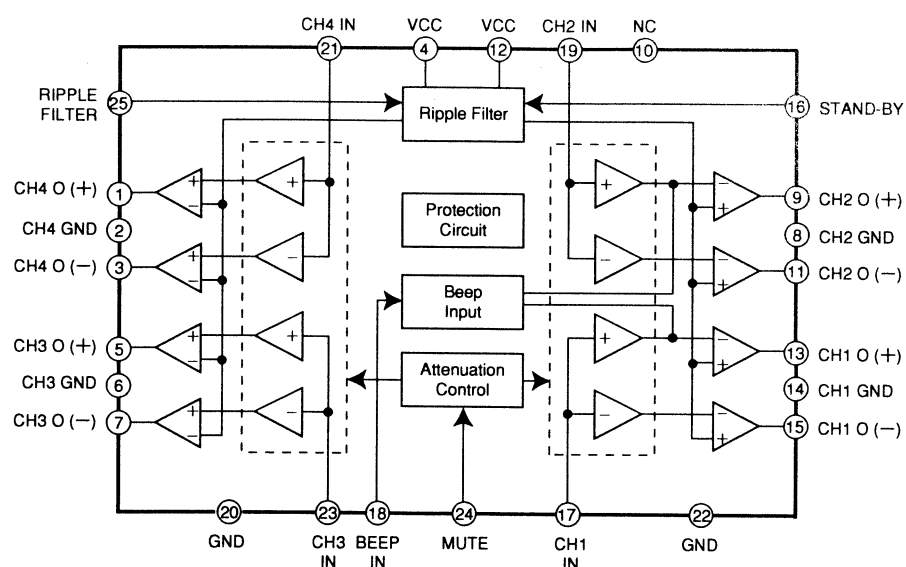


## ■IC700 YEAMPC2408HF [E-6745A]

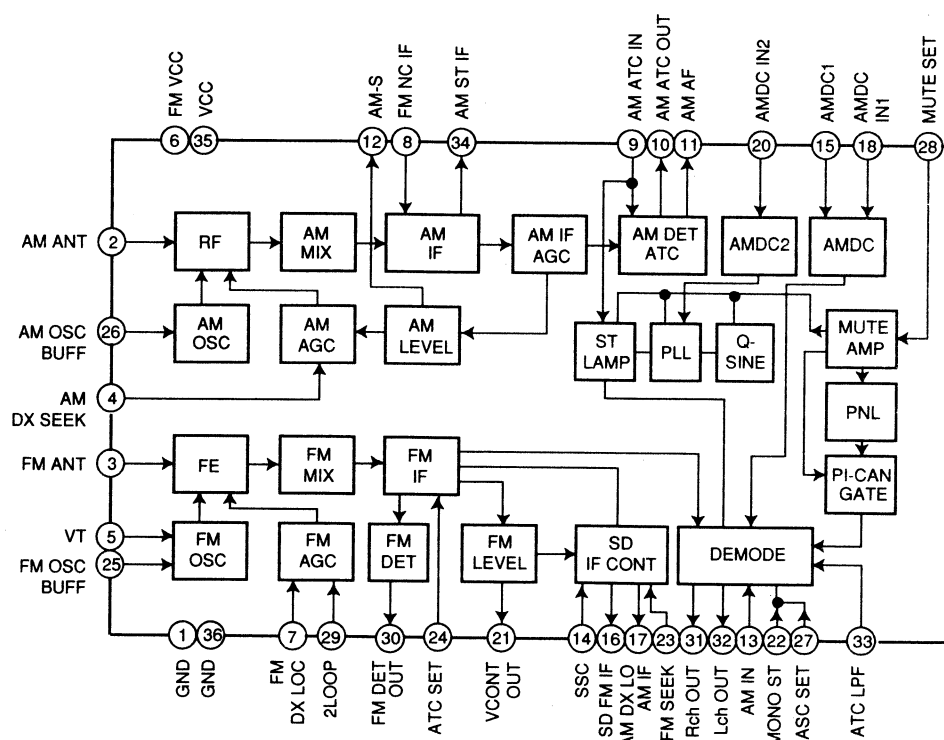


## IC BLOCK DIAGRAM (2)

■ IC231 AN7550NZ [E-6745A]

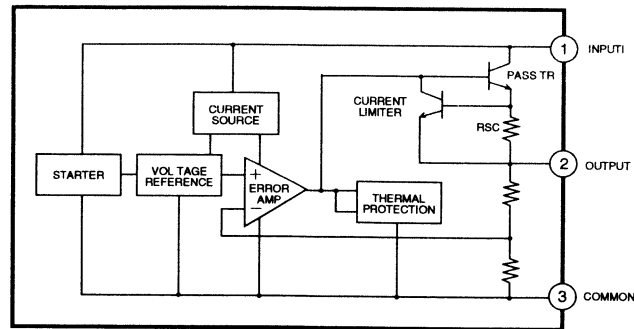


■ PA101 YEP0PTA513B0 [E-6745A]

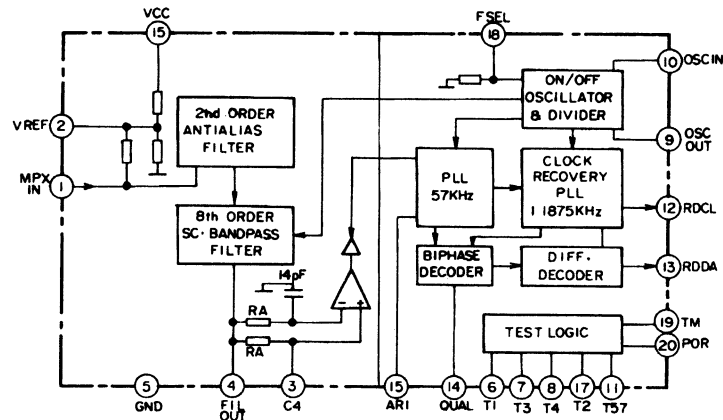


## IC BLOCK DIAGRAM (3)

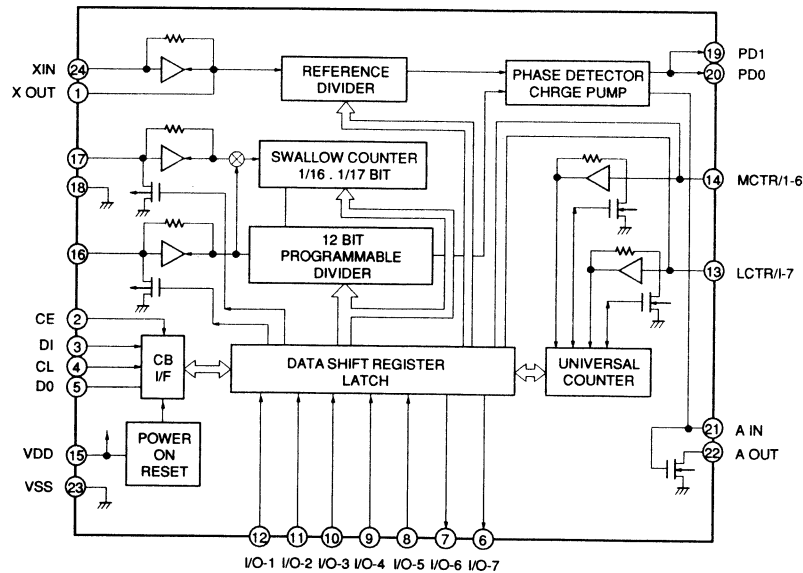
■ IC701 AN78N05 [E-6745A]



■ IC751 YEAMDA7331D [E-6745A]



■ IC761 YEAMLC72146T [E-6745A]



# 1 Replacement Parts List

## Note:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a load map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
5. "MCC" marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp. of America (MCC).

## 1.1. IC's and Transistors

### MAIN BLOCK [E-6745A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| IC101    | AN6564NST1   | IC                      |         |
| IC151    | YEAMPC4574T1 | IC                      |         |
| IC201    | YEAMM62419T1 | IC                      |         |
| IC231    | AN7550NZ     | IC                      |         |
| IC251    | YEAMPC4574T1 | IC                      |         |
| IC371    | YEAMLA3161   | IC                      |         |
| IC621    | AN8065SE1    | IC                      |         |
| IC651    | C2BBGF000036 | IC                      |         |
| IC652    | YEAM93C46EMX | IC                      |         |
| IC700    | YEAMPC2408HF | IC                      |         |
| IC701    | AN78N05      | IC                      |         |
| IC751    | YEAMDA7331D  | IC                      |         |
| IC761    | YEAMLC72146T | IC                      |         |
| Q121     | YEANBP1F3PT  | Transistor              |         |
| Q122     | YEANBP1F3PT  | Transistor              |         |
| Q231     | YEANC323TKT  | Transistor              |         |
| Q241     | YEANC323TKT  | Transistor              |         |
| Q280     | YEANC114YKTX | Transistor              |         |
| Q311     | YEANAB12T1   | Transistor              |         |
| Q331     | YEANC323TKT  | Transistor              |         |
| Q341     | YEANC323TKT  | Transistor              |         |
| Q380     | YEANC114YKTX | Transistor              |         |
| Q631     | YEANC114EKT  | Transistor              |         |
| Q632     | YEANA144EKT  | Transistor              |         |
| Q633     | 2SB1073TX    | Transistor              |         |
| Q641     | YEANC3618T1  | Transistor              |         |
| Q642     | YEANC1623T1  | Transistor              |         |
| Q643     | YEANA1037KTX | Transistor              |         |
| Q644     | YEANC1623T1  | Transistor              |         |
| Q701     | YEANBP1F3PT  | Transistor              |         |
| Q702     | YEANC114YKTX | Transistor              |         |
| Q703     | YEANFP1F3PT1 | Transistor              |         |
| Q704     | YEANC114YKTX | Transistor              |         |
| Q705     | YEANFP1F3PT1 | Transistor              |         |
| Q706     | YEAN2SD1856  | Transistor              |         |
| Q708     | YEAN2SD1856  | Transistor              |         |
| Q709     | YEANC114YKTX | Transistor              |         |
| Q710     | YEANC143EKT  | Transistor              |         |
| Q711     | YEANFP1F3PT1 | Transistor              |         |
| Q712     | YEANC114YKTX | Transistor              |         |
| Q721     | YEANA114YKTX | Transistor              |         |
| Q731     | YEANC114YKTX | Transistor              |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q734     | YEANA144EKT  | Transistor              |         |
| Q735     | 2SD1994ATA   | Transistor              |         |
| Q761     | YEAN2SK536TB | Transistor              |         |
| PA101    | YEP0PTA513B0 | Pack                    |         |

### DISPLAY BLOCK [E-8649A]

| Ref. No. | Part No.    | Part Name & Description | Remarks |
|----------|-------------|-------------------------|---------|
| IC601    | YEAMLC75854 | IC                      |         |

## 1.2. Diodes

### MAIN BLOCK [E-6745A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D100     | MA723TA      | Diode                   |         |
| D101     | YEAD1SS355T1 | Diode                   |         |
| D151     | MA153TX      | Diode                   |         |
| D152     | MA153TX      | Diode                   |         |
| D639     | MA10821MTA   | Diode                   |         |
| D640     | MA4039TA     | Diode                   |         |
| D641     | YEARD10M2T1  | Diode                   |         |
| D642     | MA153TX      | Diode                   |         |
| D700     | YEADSA3A2C   | Diode                   |         |
| D701     | MA4082MTA    | Diode                   |         |
| D702     | YEAD1SS355T1 | Diode                   |         |
| D703     | MA4091L      | Diode                   |         |
| D704     | MA159TX      | Diode                   |         |
| D720     | YEAD1SS355T1 | Diode                   |         |
| D723     | YEAD1SS355T1 | Diode                   |         |
| D724     | MA151WKT     | Diode                   |         |
| D731     | YEARD56M3T1  | Diode                   |         |
| D732     | MA151WA      | Diode                   |         |
| D734     | YEAD1SS355T1 | Diode                   |         |
| D751     | YEARD51M2T1  | Diode                   |         |

### DISPLAY BLOCK [E-8649A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D651     | B3AAA0000350 | LED                     |         |

## 1.3. Capacitors

### MAIN BLOCK [E-6745A]

| Ref. No. | Part No.     | Part Name & Description        | Remarks |
|----------|--------------|--------------------------------|---------|
| C102     | YECUS1H222KX | Ceramic, 0.0022 $\mu$ F 50WV   |         |
| C103     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C104     | ECA1AM221I   | Electrolytic, 220 $\mu$ F 10WV |         |
| C105     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C106     | YECUS1H153KX | Ceramic, 0.015 $\mu$ F 50WV    |         |
| C107     | YECUS1C154KX | Ceramic, 0.15 $\mu$ F 16WV     |         |
| C109     | YECUS1E273KX | Ceramic, 0.027 $\mu$ F 25WV    |         |
| C110     | YECUS1E473KX | Ceramic, 0.047 $\mu$ F 25WV    |         |
| C111     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C112     | ECEA1CKA100I | Electrolytic, 10 $\mu$ F 16WV  |         |
| C114     | YECUS1H151JM | Ceramic, 150pF 50WV            |         |
| C115     | YECUS1H471JM | Ceramic, 470pF 50WV            |         |
| C117     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C119     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C120     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C121     | ECA1AM221I   | Electrolytic, 220 $\mu$ F 10WV |         |
| C125     | YECUS1H103KX | Ceramic, 0.01 $\mu$ F 50WV     |         |
| C126     | YEU05F104Z   | Ceramic, 0.1 $\mu$ F 50WV      |         |
| C151     | ECEA1CKA100I | Electrolytic, 10 $\mu$ F 16WV  |         |
| C152     | YECUS1H122KX | Ceramic, 0.0012 $\mu$ F 50WV   |         |
| C153     | YECUS1H152KX | Ceramic, 0.0015 $\mu$ F 50WV   |         |
| C154     | YECUV2A103KX | Ceramic, 0.01 $\mu$ F 100WV    |         |
| C155     | YECUS1H151JM | Ceramic, 150pF 50WV            |         |
| C156     | YECUV1H151JM | Ceramic, 150pF 50WV            |         |
| C157     | YECUS1H151JM | Ceramic, 150pF 50WV            |         |
| C158     | YECUS1H102KX | Ceramic, 0.001 $\mu$ F 50WV    |         |
| C159     | YECUS1H100DM | Ceramic, 10pF 50WV             |         |
| C160     | YECUS1H102KX | Ceramic, 0.001 $\mu$ F 50WV    |         |
| C161     | YECUS1E223KX | Ceramic, 0.022 $\mu$ F 25WV    |         |

| Ref. No. | Part No.     | Part Name & Description   | Remarks |
|----------|--------------|---------------------------|---------|
| C163     | ECEA1HKA4R7I | Electrolytic, 4.7pF 50WV  |         |
| C164     | YECUS1H151JM | Ceramic, 150pF 50WV       |         |
| C166     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C201     | ECEA1HKA22I  | Electrolytic, 0.22pF 50WV |         |
| C202     | ECEA1CKA100I | Electrolytic, 10pF 16WV   |         |
| C203     | YECUS1H220JM | Ceramic, 22pF 50WV        |         |
| C204     | ECEA1HKA2R2I | Electrolytic, 2.2pF 50WV  |         |
| C205     | YECUS1H331JM | Ceramic, 330pF 50WV       |         |
| C206     | YECUS1C104KX | Ceramic, 0.1pF 16WV       |         |
| C207     | ECEA1HKA4R7I | Electrolytic, 4.7pF 50WV  |         |
| C209     | YECUS1H222KX | Ceramic, 0.0022pF 50WV    |         |
| C210     | YECUS1C154KX | Ceramic, 0.15pF 16WV      |         |
| C211     | YECUS1H222KX | Ceramic, 0.0022pF 50WV    |         |
| C213     | ECEA1HKA3R3I | Electrolytic, 3.3pF 50WV  |         |
| C214     | ECEA1HKA3R3I | Electrolytic, 3.3pF 50WV  |         |
| C221     | YECUS1E223KX | Ceramic, 0.022pF 25WV     |         |
| C222     | YECUS1H472KX | Ceramic, 0.0047pF 50WV    |         |
| C230     | ECA1CM330I   | Electrolytic, 33pF 16WV   |         |
| C240     | ECEA0JKA220I | Electrolytic, 22pF 6.3WV  |         |
| C251     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C252     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C253     | YECUS1H221JM | Ceramic, 220pF 50WV       |         |
| C254     | YECUS1H221JM | Ceramic, 220pF 50WV       |         |
| C271     | YECUS1H122KX | Ceramic, 0.0012pF 50WV    |         |
| C272     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C273     | ECEA0JKA101I | Electrolytic, 100pF 6.3WV |         |
| C274     | YECUS1E273KX | Ceramic, 0.027pF 25WV     |         |
| C280     | YECUS1E333KX | Ceramic, 0.033pF 25WV     |         |
| C291     | ECEA0JKA101I | Electrolytic, 100pF 6.3WV |         |
| C292     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C301     | ECEA1HKA22I  | Electrolytic, 0.22pF 50WV |         |
| C302     | ECEA1CKA100I | Electrolytic, 10pF 16WV   |         |
| C303     | YECUS1H220JM | Ceramic, 22pF 50WV        |         |
| C304     | ECEA1HKA2R2I | Electrolytic, 2.2pF 50WV  |         |
| C305     | YECUS1H331JM | Ceramic, 330pF 50WV       |         |
| C306     | YECUS1C104KX | Ceramic, 0.1pF 16WV       |         |
| C307     | ECEA1HKA4R7I | Electrolytic, 4.7pF 50WV  |         |
| C309     | YECUS1H222KX | Ceramic, 0.0022pF 50WV    |         |
| C310     | YECUS1C154KX | Ceramic, 0.15pF 16WV      |         |
| C311     | YECUS1H222KX | Ceramic, 0.0022pF 50WV    |         |
| C313     | ECEA1HKA3R3I | Electrolytic, 3.3pF 50WV  |         |
| C314     | ECEA1HKA3R3I | Electrolytic, 3.3pF 50WV  |         |
| C320     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C321     | YECUS1E223KX | Ceramic, 0.022pF 25WV     |         |
| C322     | YECUS1H472KX | Ceramic, 0.0047pF 50WV    |         |
| C350     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C351     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C352     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C353     | YECUS1H221JM | Ceramic, 220pF 50WV       |         |
| C354     | YECUS1H221JM | Ceramic, 220pF 50WV       |         |
| C371     | YECUS1H122KX | Ceramic, 0.0012pF 50WV    |         |
| C372     | ECEA1HKA010I | Electrolytic, 1pF 50WV    |         |
| C373     | ECA0JM101I   | Electrolytic, 100pF 6.3WV |         |
| C374     | YECUS1E273KX | Ceramic, 0.027pF 25WV     |         |
| C380     | YECUS1E333KX | Ceramic, 0.033pF 25WV     |         |
| C501     | YECUS1H681JM | Ceramic, 680pF 50WV       |         |
| C615     | YECUS1C104KX | Ceramic, 0.1pF 16WV       |         |
| C619     | ECEA0JKA331I | Electrolytic, 330pF 6.3WV |         |
| C622     | YECUS1C104KX | Ceramic, 0.1pF 16WV       |         |
| C632     | YECUS1C224KX | Ceramic, 0.022pF 16WV     |         |
| C633     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C634     | ECEA1AKA22I  | Electrolytic, 220pF 10WV  |         |
| C636     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C637     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C640     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C641     | YECUS1H103KX | Ceramic, 0.01pF 50WV      |         |
| C642     | ECEA1CKA10I  | Electrolytic, 100pF 16WV  |         |
| C643     | YECUS1H330JM | Ceramic, 33pF 50WV        |         |
| C644     | YECUS1H102KX | Ceramic, 0.001pF 50WV     |         |
| C645     | YECUS1H471JM | Ceramic, 470pF 50WV       |         |
| C651     | YECUS1H270JM | Ceramic, 27pF 50WV        |         |
| C652     | YECUS1H270JM | Ceramic, 27pF 50WV        |         |
| C653     | YECUS1H180JM | Ceramic, 18pF 50WV        |         |

| Ref. No. | Part No.     | Part Name & Description    | Remarks |
|----------|--------------|----------------------------|---------|
| C655     | YECUS1H180JM | Ceramic, 18pF 50WV         |         |
| C657     | ECEA0JKA331I | Electrolytic, 330pF 6.3WV  |         |
| C658     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C659     | YECUS1C104KX | Ceramic, 0.1pF 16WV        |         |
| C660     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C661     | YECUS1H220JM | Ceramic, 22pF 50WV         |         |
| C663     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C664     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C693     | YECUS1H103ZF | Ceramic, 0.01pF 50WV       |         |
| C694     | YECUS1H103ZF | Ceramic, 0.01pF 50WV       |         |
| C700     | ECQV1H104JL2 | Plastic Film, 0.1pF 50WV   |         |
| C701     | YECUS1E223KX | Ceramic, 0.022pF 25WV      |         |
| C702     | ECEA1CPU222L | Electrolytic, 2200pF 16WV  |         |
| C704     | ECA1CM102B   | Electrolytic, 1000pF 16WV  |         |
| C705     | ECA1CM47I    | Electrolytic, 470pF 16WV   |         |
| C707     | ECEA1CKA100I | Electrolytic, 10pF 16WV    |         |
| C708     | YECUS1C104KX | Ceramic, 0.1pF 16WV        |         |
| C709     | ECA1CM22I    | Electrolytic, 220pF 16WV   |         |
| C710     | ECEA1AKA101I | Electrolytic, 100pF 10WV   |         |
| C711     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C712     | ECA0JM101I   | Electrolytic, 100pF 6.3WV  |         |
| C713     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C714     | YECUS1C104KX | Ceramic, 0.1pF 16WV        |         |
| C715     | ECEA1HKA2R2I | Electrolytic, 2.2pF 50WV   |         |
| C721     | ECQV1H104JL2 | Plastic Film, 0.1pF 50WV   |         |
| C722     | YECUS1E473KX | Ceramic, 0.047pF 25WV      |         |
| C723     | YECUS1E473KX | Ceramic, 0.047pF 25WV      |         |
| C724     | ECEA1AKA101I | Electrolytic, 100pF 10WV   |         |
| C725     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C726     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C727     | ECEA1AKA101I | Electrolytic, 100pF 10WV   |         |
| C728     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C730     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C735     | YECUS1H333ZF | Ceramic, 0.033pF 50WV      |         |
| C736     | YECUS1H333ZF | Ceramic, 0.033pF 50WV      |         |
| C738     | YECUS1H333ZF | Ceramic, 0.033pF 50WV      |         |
| C739     | YECUS1H333ZF | Ceramic, 0.033pF 50WV      |         |
| C741     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C742     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C743     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C744     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C745     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C746     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C747     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C748     | YECUS1C224KX | Ceramic, 0.022pF 16WV      |         |
| C751     | YECUS1H331JM | Ceramic, 330pF 50WV        |         |
| C752     | YECUS1H271JM | Ceramic, 270pF 50WV        |         |
| C753     | ECEA1CKA100I | Electrolytic, 10pF 16WV    |         |
| C754     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C756     | YECUS1H470JM | Ceramic, 47pF 50WV         |         |
| C757     | YECUS1H270JM | Ceramic, 27pF 50WV         |         |
| C759     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C760     | ECEA1CKA470I | Electrolytic, 47pF 16WV    |         |
| C761     | YECUS1H150JM | Ceramic, 15pF 50WV         |         |
| C767     | YECUS1H101JM | Ceramic, 100pF 50WV        |         |
| C768     | YECUS1H101JM | Ceramic, 100pF 50WV        |         |
| C769     | YECUS1H101JM | Ceramic, 100pF 50WV        |         |
| C770     | YECUS1H150JM | Ceramic, 15pF 50WV         |         |
| C771     | ECEA0JKA101I | Electrolytic, 100pF 6.3WV  |         |
| C772     | YECUS1E333KX | Ceramic, 0.033pF 25WV      |         |
| C773     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C774     | ECEA1AKA22I  | Electrolytic, 220pF 10WV   |         |
| C775     | YECUS1H101JM | Ceramic, 100pF 50WV        |         |
| C776     | YECUS1H101JM | Ceramic, 100pF 50WV        |         |
| C777     | YECUS1H222KX | Ceramic, 0.0022pF 50WV     |         |
| C778     | ECQV1H683JL2 | Plastic Film, 0.068pF 50WV |         |
| C779     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C781     | YECUS1H103KX | Ceramic, 0.01pF 50WV       |         |
| C782     | YECUV1H104KX | Ceramic, 0.1pF 50WV        |         |
| C783     | YECUS1C104KX | Ceramic, 0.1pF 16WV        |         |
| C784     | YECUS1C104KX | Ceramic, 0.1pF 16WV        |         |
| C790     | YECUS1H102KX | Ceramic, 0.001pF 50WV      |         |

DISPLAY BLOCK [E-8649A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C600     | YECUS1H220JM | Ceramic, 22pF 50WV      |         |
| C601     | YECUS1H473KX | Ceramic, 0.047pF 50WV   |         |
| C602     | YECUS1H473KX | Ceramic, 0.047pF 50WV   |         |
| C603     | YECUS1H681JM | Ceramic, 680pF 50WV     |         |
| C604     | YECUV1C104KX | Ceramic, 0.1pF 16WV     |         |
| C605     | YECUS1H181JM | Ceramic, 180pF 50WV     |         |
| C606     | YECUS1H181JM | Ceramic, 180pF 50WV     |         |
| C607     | YECUS1H181JM | Ceramic, 180pF 50WV     |         |
| C608     | YECUS1H181JM | Ceramic, 180pF 50WV     |         |
| C609     | YECUS1H181JM | Ceramic, 180pF 50WV     |         |
| C610     | YECUS1H103KX | Ceramic, 0.01pF 50WV    |         |
| C611     | YECUS1H103KX | Ceramic, 0.01pF 50WV    |         |
| C612     | YECUV2A102KX | Ceramic, 0.001pF 100WV  |         |
| C613     | YECUS1H471JM | Ceramic, 470pF 50WV     |         |
| C614     | YECUS1H471JM | Ceramic, 470pF 50WV     |         |

## 1.4. Resistors

MAIN BLOCK [E-6745A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R101     | ERJ6GEYJ392  | Chip, 3.9kΩ 1/10W       |         |
| R103     | ERJ6GEYJ153  | Chip, 15kΩ 1/10W        |         |
| R105     | ERJ6GEYJ562  | Chip, 5.6kΩ 1/10W       |         |
| R107     | ERJ6GEYJ153  | Chip, 15kΩ 1/10W        |         |
| R108     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R109     | ERJ6GEYJ563  | Chip, 56kΩ 1/10W        |         |
| R111     | ERJ6GEYJ683  | Chip, 68kΩ 1/10W        |         |
| R112     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R113     | ERJ6GEYJ101  | Chip, 100Ω 1/10W        |         |
| R114     | ERJ6GEYJ822  | Chip, 8.2kΩ 1/10W       |         |
| R115     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R118     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R151     | ERJ6GEYJ332  | Chip, 3.3kΩ 1/10W       |         |
| R152     | ERJ6GEYJ332  | Chip, 3.3kΩ 1/10W       |         |
| R153     | ERJ8GEYJ222V | Chip, 2.2kΩ 1/8W        |         |
| R154     | ERJ6GEYJ561  | Chip, 560Ω 1/10W        |         |
| R155     | ERJ6GEYJ683  | Chip, 68kΩ 1/10W        |         |
| R156     | ERJ8GEYJ332V | Chip, 3.3kΩ 1/8W        |         |
| R157     | ERJ6GEYJ183  | Chip, 18kΩ 1/10W        |         |
| R158     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R159     | ERJ8GEYJ393V | Chip, 39kΩ 1/8W         |         |
| R160     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R161     | ERJ8GEYJ103V | Chip, 10kΩ 1/8W         |         |
| R162     | ERJ6GEYJ393  | Chip, 39kΩ 1/10W        |         |
| R163     | ERJ6GEYJ393  | Chip, 39kΩ 1/10W        |         |
| R164     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R165     | ERJ8GEYJ332V | Chip, 3.3kΩ 1/8W        |         |
| R166     | ERJ6GEYJ224  | Chip, 220kΩ 1/10W       |         |
| R167     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R168     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R201     | ERJ6GEYJ332  | Chip, 3.3kΩ 1/10W       |         |
| R203     | ERJ6GEYJ563  | Chip, 56kΩ 1/10W        |         |
| R204     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R205     | ERJ6GEYJ472  | Chip, 4.7kΩ 1/10W       |         |
| R206     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R207     | ERJ6GEYJ153  | Chip, 15kΩ 1/10W        |         |
| R208     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R209     | ERJ6GEYJ182  | Chip, 1.8kΩ 1/10W       |         |
| R210     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R211     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R221     | ERJ6GEYJ121  | Chip, 120Ω 1/10W        |         |
| R222     | ERDS2TJ121   | Carbon, 120Ω 1/4W       |         |
| R225     | ERD25TJ821   | Carbon, 820Ω 1/4W       |         |
| R226     | ERD25TJ821   | Carbon, 820Ω 1/4W       |         |
| R235     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R241     | ERJ6GEYJ681  | Chip, 680Ω 1/10W        |         |
| R242     | ERJ6GEYJ681  | Chip, 680Ω 1/10W        |         |
| R245     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R251     | ERD25TJ103   | Carbon, 10kΩ 1/4W       |         |
| R252     | ERD25TJ103   | Carbon, 10kΩ 1/4W       |         |
| R253     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R254     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R255     | ERJ6GEYJ680  | Chip, 68Ω 1/10W         |         |
| R260     | ERJ6GEYJ514  | Chip, 510kΩ 1/10W       |         |
| R271     | ERJ6GEYJ333  | Chip, 33kΩ 1/10W        |         |
| R272     | ERJ6GEYJ472  | Chip, 4.7kΩ 1/10W       |         |
| R273     | ERJ6GEYJ390  | Chip, 39Ω 1/10W         |         |
| R274     | ERJ6GEYJ124  | Chip, 120kΩ 1/10W       |         |
| R275     | ERJ6GEYJ562  | Chip, 5.6kΩ 1/10W       |         |
| R280     | ERJ6GEYJ222  | Chip, 2.2kΩ 1/10W       |         |
| R281     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R291     | ERJ6GEYJ222  | Chip, 2.2kΩ 1/10W       |         |
| R292     | ERJ6GEYJ222  | Chip, 2.2kΩ 1/10W       |         |
| R301     | ERJ6GEYJ332  | Chip, 3.3kΩ 1/10W       |         |
| R303     | ERJ6GEYJ563  | Chip, 56kΩ 1/10W        |         |
| R304     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R305     | ERJ6GEYJ472  | Chip, 4.7kΩ 1/10W       |         |
| R306     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R307     | ERJ6GEYJ153  | Chip, 15kΩ 1/10W        |         |
| R308     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R309     | ERJ6GEYJ182  | Chip, 1.8kΩ 1/10W       |         |
| R310     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R311     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R321     | ERJ6GEYJ121  | Chip, 120Ω 1/10W        |         |
| R322     | ERJ8GEYJ121V | Chip, 120Ω 1/8W         |         |
| R325     | ERD25TJ821   | Carbon, 820Ω 1/4W       |         |
| R326     | ERD25TJ821   | Carbon, 820Ω 1/4W       |         |
| R327     | ERJ6GEYJ222  | Chip, 2.2kΩ 1/10W       |         |
| R328     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R335     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R340     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R341     | ERJ6GEYJ681  | Chip, 680Ω 1/10W        |         |
| R342     | ERJ6GEYJ681  | Chip, 680Ω 1/10W        |         |
| R343     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R345     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R351     | ERD25TJ103   | Carbon, 10kΩ 1/4W       |         |
| R352     | ERD25TJ103   | Carbon, 10kΩ 1/4W       |         |
| R353     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R354     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R355     | ERJ6GEYJ680  | Chip, 68Ω 1/10W         |         |
| R371     | ERJ6GEYJ333  | Chip, 33kΩ 1/10W        |         |
| R372     | ERJ6GEYJ472  | Chip, 4.7kΩ 1/10W       |         |
| R373     | ERJ6GEYJ390  | Chip, 39Ω 1/10W         |         |
| R374     | ERJ6GEYJ124  | Chip, 120kΩ 1/10W       |         |
| R375     | ERJ8GEYJ562V | Chip, 5.6kΩ 1/8W        |         |
| R380     | ERJ6GEYJ222  | Chip, 2.2kΩ 1/10W       |         |
| R381     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R621     | YER122R2703D | Metal Film, 270kΩ 1/10W |         |
| R622     | YER122P4302D | Metal Film, 43kΩ 1/10W  |         |
| R623     | YER122P2702D | Metal Film, 27kΩ 1/10W  |         |
| R624     | YER122P4701D | Metal Film, 4.7kΩ 1/10W |         |
| R633     | ERJ8GEYJ333V | Chip, 33kΩ 1/8W         |         |
| R635     | ERDS2TJ222   | Carbon, 2.2kΩ 1/4W      |         |
| R636     | ERDS2TJ102   | Carbon, 1kΩ 1/4W        |         |
| R637     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R638     | ERDS1FJ271   | Carbon, 270Ω 1/2W       |         |
| R639     | ERJ8GEYJ101V | Chip, 100Ω 1/8W         |         |
| R640     | ERDS2TJ182   | Carbon, 1.8kΩ 1/4W      |         |
| R641     | ERDS2TJ1R0   | Carbon, 1.0Ω 1/4W       |         |
| R642     | ERJ6GEYJ100  | Chip, 10Ω 1/10W         |         |
| R644     | ERJ6GEYJ223  | Chip, 22kΩ 1/10W        |         |
| R645     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |
| R646     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R647     | ERJ8GEYJ183V | Chip, 18kΩ 1/8W         |         |
| R648     | ERJ6GEYJ103  | Chip, 10kΩ 1/10W        |         |
| R649     | ERJ8GEYJ223V | Chip, 22kΩ 1/8W         |         |
| R650     | ERJ8GEYJ102V | Chip, 1kΩ 1/8W          |         |
| R651     | ERJ6GEYJ104  | Chip, 100kΩ 1/10W       |         |
| R652     | ERDS2TJ102   | Carbon, 1kΩ 1/4W        |         |
| R653     | ERJ6GEYJ561  | Chip, 560Ω 1/10W        |         |
| R654     | ERJ6GEYJ101  | Chip, 100Ω 1/10W        |         |
| R655     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R656     | ERJ6GEYJ102  | Chip, 1kΩ 1/10W         |         |
| R657     | ERJ8GEYJ102V | Chip, 1kΩ 1/8W          |         |
| R658     | ERJ6GEYJ473  | Chip, 47kΩ 1/10W        |         |

| Ref. No. | Part No.     | Part Name & Description        | Remarks |
|----------|--------------|--------------------------------|---------|
| R659     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R660     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R661     | ERJ6GEYJ473  | Chip, 47k $\Omega$ 1/10W       |         |
| R662     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R663     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R664     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R665     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R666     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R668     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R671     | ERJ8GEYJ681V | Chip, 680 $\Omega$ 1/8W        |         |
| R672     | ERJ6GEYJ473  | Chip, 47k $\Omega$ 1/10W       |         |
| R673     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R674     | ERJ6GEYJ104  | Chip, 100k $\Omega$ 1/10W      |         |
| R675     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R676     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R677     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R678     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R679     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R680     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R681     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R682     | ERJ6GEYJ473  | Chip, 47k $\Omega$ 1/10W       |         |
| R683     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R685     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R687     | ERJ6GEYJ684  | Chip, 680k $\Omega$ 1/10W      |         |
| R688     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R699     | ERJ6GEYJ184  | Chip, 180k $\Omega$ 1/10W      |         |
| R702     | ERDS2TJ102   | Carbon, 1k $\Omega$ 1/4W       |         |
| R706     | ERDS2TJ122   | Carbon, 1.2k $\Omega$ 1/4W     |         |
| R710     | ERJ8GEYJ562V | Chip, 5.6k $\Omega$ 1/8W       |         |
| R711     | ERJ6GEYJ272  | Chip, 2.7k $\Omega$ 1/10W      |         |
| R712     | ERDS2TJ821   | Carbon, 820 $\Omega$ 1/4W      |         |
| R713     | ERJ8GEYJ821V | Chip, 820 $\Omega$ 1/8W        |         |
| R714     | ERJ6GEYJ821  | Chip, 820 $\Omega$ 1/10W       |         |
| R715     | ERDS1FJ1R0   | Carbon, 1 $\Omega$ 1/2W        |         |
| R716     | ERDS2TJ821   | Carbon, 820 $\Omega$ 1/4W      |         |
| R717     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R718     | ERDS2TJ1R0   | Carbon, 1.0 $\Omega$ 1/4W      |         |
| R719     | ERJ6GEYJ151  | Chip, 150 $\Omega$ 1/10W       |         |
| R720     | ERJ6GEYJ151  | Chip, 150 $\Omega$ 1/10W       |         |
| R724     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R726     | ERX12SJR47   | Metal Film, 0.47 $\Omega$ 1/2W |         |
| R733     | ERJ8GEYJ332V | Chip, 3.3k $\Omega$ 1/8W       |         |
| R735     | ERDS2TJ1R0   | Carbon, 1.0 $\Omega$ 1/4W      |         |
| R736     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R737     | ERJ6GEYJ472  | Chip, 4.7k $\Omega$ 1/10W      |         |
| R741     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R742     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R743     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R744     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R745     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R746     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R747     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R748     | ERJ8GEYJ2R2V | Chip, 2.2 $\Omega$ 1/8W        |         |
| R751     | ERDS2TJ151   | Carbon, 150 $\Omega$ 1/4W      |         |
| R752     | ERJ6GEYJ334  | Chip, 330k $\Omega$ 1/10W      |         |
| R754     | ERJ6GEYJ225  | Chip, 2.2k $\Omega$ 1/10W      |         |
| R756     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R757     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W       |         |
| R761     | ERJ8GEYJ103V | Chip, 10k $\Omega$ 1/8W        |         |
| R762     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R763     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R764     | ERJ8GEYJ102V | Chip, 1k $\Omega$ 1/8W         |         |
| R765     | ERJ6GEYJ561  | Chip, 560 $\Omega$ 1/10W       |         |
| R767     | ERJ6GEYJ392  | Chip, 3.9k $\Omega$ 1/10W      |         |
| R768     | ERJ6GEYJ101  | Chip, 100 $\Omega$ 1/10W       |         |
| R769     | ERDS2TJ561   | Carbon, 560 $\Omega$ 1/4W      |         |
| R770     | ERJ8GEYJ100V | Chip, 10 $\Omega$ 1/8W         |         |
| R773     | ERJ6GEYJ102  | Chip, 1k $\Omega$ 1/10W        |         |
| R811     | ERDS2TJ104   | Carbon, 100k $\Omega$ 1/4W     |         |
| R812     | ERJ6GEYJ104  | Chip, 100k $\Omega$ 1/10W      |         |
| R813     | ERJ6GEYJ473  | Chip, 47k $\Omega$ 1/10W       |         |
| R814     | ERJ6GEYJ104  | Chip, 100k $\Omega$ 1/10W      |         |
| R815     | ERJ8GEYJ392V | Chip, 3.9k $\Omega$ 1/8W       |         |

| Ref. No. | Part No.     | Part Name & Description   | Remarks |
|----------|--------------|---------------------------|---------|
| R816     | ERJ6GEYJ103  | Chip, 10k $\Omega$ 1/10W  |         |
| R831     | ERJ8GEYJ104V | Chip, 100k $\Omega$ 1/8W  |         |
| R832     | ERD25TJ471   | Carbon, 470 $\Omega$ 1/4W |         |

## DISPLAY BLOCK [E-8649A]

| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| R601     | ERJ6GEYJ683  | Chip, 68k $\Omega$ 1/10W |         |
| R602     | ERJ8GEYJ472V | Chip, 4.7k $\Omega$ 1/8W |         |
| R603     | ERJ6GEYJ101  | Chip, 100 $\Omega$ 1/10W |         |
| R606     | ERJ6GEYJ101  | Chip, 100 $\Omega$ 1/10W |         |
| R607     | ERJ8GEYJ470V | Chip, 47 $\Omega$ 1/8W   |         |

## 1.5. Connectors

## MAIN BLOCK [E-6745A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| CN630    | YEA9604S10S  | Connector, 10P          |         |
| CN701    | YEA012672    | Connector, 12P/8P       |         |
| CN702    | YEA012673    | Connector, 16P          |         |
| CN901    | YEAETKCF14PS | Connector, 14P          |         |
| CP401    | YEA0104ASIK  | Connector, 4P           |         |
| CP402    | YEA0104ASIK  | Connector, 4P           |         |

## DISPLAY BLOCK [E-8649A]

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| CJ901    | K1MQ14A00002 | Connector, 14P          |         |

## 1.6. Electric Parts

## SWITCHES

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| SW603    | EVQ11T04M | Push Switch             |         |
| SW604    | EVQ11T04M | Push Switch             |         |
| SW605    | EVQ11T04M | Push Switch             |         |
| SW606    | EVQ11T04M | Push Switch             |         |
| SW607    | EVQ11T04M | Push Switch             |         |
| SW608    | EVQ11T04M | Push Switch             |         |
| SW609    | EVQ11T04M | Push Switch             |         |
| SW610    | EVQ11T04M | Push Switch             |         |
| SW611    | EVQ11T04M | Push Switch             |         |
| SW612    | EVQ11T04M | Push Switch             |         |
| SW613    | EVQ11T04M | Push Switch             |         |
| SW614    | EVQ11T04M | Push Switch             |         |
| SW615    | EVQ11T04M | Push Switch             |         |
| SW616    | EVQ11T04M | Push Switch             |         |
| SW617    | EVQ11T04M | Push Switch             |         |
| SW618    | EVQ11T04M | Push Switch             |         |
| SW619    | EVQ11T04M | Push Switch             |         |
| SW620    | EVQ11T04M | Push Switch             |         |

## CRYSTALS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| XL651    | YEXL49U0629T | Crystal OSC             |         |
| XL652    | YEXL2RX0327  | Crystal OSC             |         |
| XL751    | YEXL49U0433T | Crystal OSC             |         |
| XL761    | YEXL49U072TA | Crystal OSC             |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L101     | YELT03N3R3JT | Coil                    |         |
| L103     | YELT03N1R0JT | Coil                    |         |
| L651     | YELT03N101JT | Coil                    |         |
| L701     | YETQ026F123  | Coil                    |         |
| L702     | YELT03N470JT | Coil                    |         |
| L752     | YELT03N101JT | Coil                    |         |
| L760     | YELT03N101JT | Coil                    |         |
| L601     | YELT03N101JT | Coil                    |         |

## LCD

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| LCD601   | L5AAAMC00004 | LCD                     |         |

## LAMPS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Z101     | YEAL02011T   | Neon Lamp               |         |
| PL601    | YEALHSLG005  | Pilot Lamp              |         |
| PL602    | YEALHSLG005  | Pilot Lamp              |         |
| PL603    | YEALSTGG011A | Pilot Lamp              |         |
| PL604    | YEALSTGG011A | Pilot Lamp              |         |
| PL605    | YEALSTGG011A | Pilot Lamp              |         |
| PL606    | YEALSTGG011A | Pilot Lamp              |         |
| PL607    | YEALSTGG011A | Pilot Lamp              |         |
| PL608    | YEALSTGG011A | Pilot Lamp              |         |
| PL609    | YEALHSLG005  | Pilot Lamp              |         |
| PL610    | YEALHSLG005  | Pilot Lamp              |         |
| PL611    | YEALHSLG005  | Pilot Lamp              |         |
| PL612    | YEALHSLG005  | Pilot Lamp              |         |

## 1.7. Mechanical Parts

## MISCELLANEOUS

| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| ANT101   | YEAAL0060    | Antenna Receptacle          |         |
| AT1      | YEFX0213797  | Bracket,GND                 |         |
| AT2      | YEFX0213797  | Bracket,GND                 |         |
| TP602    | YEAT03240    | Terminal                    |         |
| CNP1     | YEAES10A100B | Flat Cable,10P              |         |
| 1        | YEFA031638   | Upper Cover                 |         |
| 2        | YEFA05734    | Bottom Cover                |         |
| 3        | YEFA07479A   | Front Plate                 |         |
| 4        | YEFA09631    | Side Plate(L)               |         |
| 5        | YEFA09632    | Side Plate(R)               |         |
| 6        | YEFAL31397   | Cover                       |         |
| 7        | YEF026384A   | Escutcheon                  |         |
| 8        | YEFEL35743   | Button                      |         |
| 9        | YEF02331A    | Knob,VOL                    |         |
| 10       | YEFEL35692   | Button,EJECT                |         |
| 11       | YEFEL35693   | Button,FF                   |         |
| 12       | YEFEL35694   | Button,REW                  |         |
| 13       | YEFF01965    | Heat Sink                   |         |
| 14       | YEFK04404    | Holder,Pilot Lamp           |         |
| 15       | YEFK06843    | Holder,LCD                  |         |
| 16       | YEF04660A    | Rubber Packing              |         |
| 17       | YEFV021604   | Optical Shade               |         |
| 18       | YEFV021646   | Optical Shade               |         |
| 19       | YEFV021647   | Optical Shade               |         |
| 20       | YEFV021654   | Optical Shade               |         |
| 21       | YEFX0011915  | Transparent Plate           |         |
| 22       | YEFX0011918  | Transparent Plate           |         |
| 23       | YEFX0011919  | Transparent Plate           |         |
| 24       | YEFX0011921A | Transparent Plate           |         |
| 25       | YEFX0021265  | Cassette Door               |         |
| 26       | YEFX0051050A | Spring                      |         |
| 27       | YEFX0214244  | Bracket,CN701               |         |
| 28       | YEFX0214500  | Bracket,IC231               |         |
| 29       | YEFX0214655  | Bracket,Deck                |         |
| 30       | YEFX0214660  | Bracket,Deck                |         |
| 31       | YEFX0214661  | Bracket,Deck                |         |
| 32       | YEFX0214677  | Bracket,IC700               |         |
| 33       | YEFX0461247  | Lever,EJECT                 |         |
| 34       | YEFX9991346  | Spring,GND                  |         |
| 35       | YEP0PT6745B0 | PCB w/Component             | RTL     |
| 36       | YEP0PT8649B0 | PCB w/Component             | RTL     |
| 51       | YEJS06185    | Screw,2.6mm * 3.5mm         |         |
| 52       | YEJT03038    | Tapping Screw,3mm * 16mm    |         |
| 53       | YEJT03081    | Tapping Screw,2.6mm * 2.5mm |         |
| 54       | YEJT03131    | Tapping Screw,2.6 * 5mm     |         |
| 55       | XTV26+5GFN   | Tapping Screw               |         |
| 56       | YEVJ01104    | Bolt                        |         |
| 57       | XSB3+4FX     | Screw,3mm * 4mm             |         |
| 58       | XTB2+6GFX    | Tapping Screw,2mm * 6mm     |         |

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| 59       | XTB3+6FFX | Tapping Screw,3mm * 6mm |         |

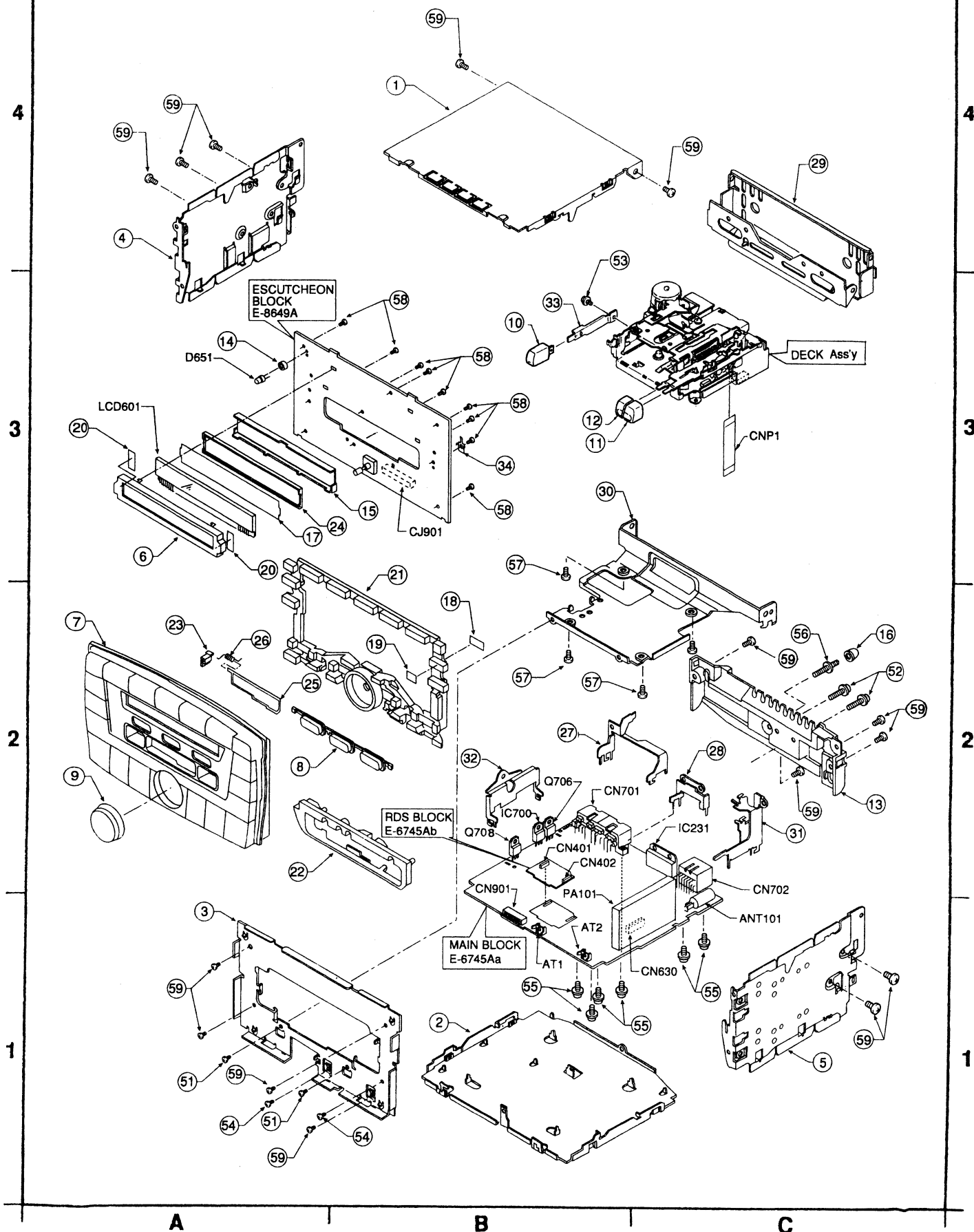
## 2 Tape Player Parts List

## MISCELLANEOUS

| Ref. No. | Part No.    | Part Name & Description   | Remarks |
|----------|-------------|---------------------------|---------|
| 1        | YEFA011605  | CHASSIS RIVET ASS'Y       | (2-B)   |
| 3        | YEAHP7742BB | HEAD ASS'Y                | (1-C)   |
| 4        | YEAS07180   | HEAD SW ASS'Y             | (2-C)   |
| 5        | YEP0FX2802  | HEAD PANEL ASS'Y (D)      | (1-C)   |
| 6        | YEFX030095  | P.GEAR METAL              | (3-C)   |
| 7        | YEFX003778  | P.GEAR                    | (2-C)   |
| 8        | YEAJ02741   | FLAT WIRE                 | (2-C)   |
| 9        | YEFX249414  | PINCH ROLLER ARM(F) ASS'Y | (3-B)   |
| 10       | YEFX249415  | PINCH ROLLER ARM(R) ASS'Y | (2-A)   |
| 12       | YEP0FX2803  | MG PLATE ASS'Y            | (1-A)   |
| 14       | YEAS07181   | POWER SW ASS'Y            | (3-A)   |
| 16       | YEFX0052093 | REVERSE SPRING            | (4-B)   |
| 17       | YEFX0461773 | P.S ACTUATOR PLATE B      | (4-B)   |
| 18       | YEFX030096  | PACK SLIDER B             | (4-B)   |
| 19       | YEFX233484  | CASE LIFTER B             | (4-B)   |
| 20       | YEP0FX2804  | CASSETTE CASE ASS'Y       | (3-A)   |
| 22       | YEFX0052094 | PUSH LEVER SPRING K       | (3-A)   |
| 23       | YEP0FX2805  | PUSH LEVER B RIVET ASS'Y  | (3-A)   |
| 25       | YEFX0461776 | MAIN PLATE                | (3-C)   |
| 26       | YEFX0052099 | H.S SPRING                | (2-C)   |
| 29       | YEAJ01026   | MOTOR ASS'Y               | (3-B)   |
| 31       | YEFX213212  | FL CAPSTAN ASS'Y          | (3-B)   |
| 31       | YEFX213212  | FL CAPSTAN ASS'Y          | (1-B)   |
| 32       | YEFX0052108 | P.SW SPRING R             | (3-A)   |
| 33       | YEFX0052097 | P.SW SPRING               | (3-A)   |
| 34       | YEFX0052096 | TA.SPRING                 | (2-B)   |
| 35       | YEFX249416  | TRIGGER ARM               | (1-B)   |
| 36       | YEFX249417  | H.P PUSH ARM B            | (1-B)   |
| 37       | YEFX218289  | H.P ROLLER                | (2-C)   |
| 38       | YEFX249418  | HP PUSH PLATE             | (1-B)   |
| 39       | YEFX0052098 | P.P SPRING                | (2-A)   |
| 39       | YEFX0052098 | P.P SPRING                | (3-C)   |
| 40       | YEFX0461774 | HP RETURN ARM             | (2-A)   |
| 52       | YEFX003510  | MAIN GEAR V               | (3-B)   |
| 53       | YEFX026120  | MIDDLE PULLEY             | (2-B)   |
| 54       | YEF03084    | MAIN BELT                 | (1-B)   |
| 56       | YEP0FX2806  | FR LEVER ASS'Y            | (4-C)   |
| 57       | YEFX0461775 | LOCK PLATE                | (3-C)   |
| 58       | YEFX0052095 | LOCK PLATE SPRING         | (3-C)   |
| 200      | YEJS06132   | SCREW                     | (2-C)   |
| 201      | YEJS06174   | SCREW,2mm * 5mm           | (2-C)   |
| 202      | YEJT03118   | SCREW,2mm * 3mm           | (2-A)   |
|          |             |                           | (1-A)   |
| 203      | YEJS06195   | SCREW,2mm * 2mm           | (1-A)   |
| 204      | YEJS06191   | SCREW,2.6mm * 4.5mm       | (3-C)   |
| 205      | YEJS06130   | SCREW,2mm * 3mm           | (2-B)   |
| 211      | YEW05135    | WASHER                    | (1-B)   |
| 212      | YEW05136    | WASHER                    | (2-B)   |
|          |             |                           | (3-B)   |
| 213      | YEW05137    | WASHER                    | (2-B)   |
| 214      | YEFX014053  | WASHER                    | (3-B)   |
| 215      | YEW05130    | WASHER                    | (2-B)   |

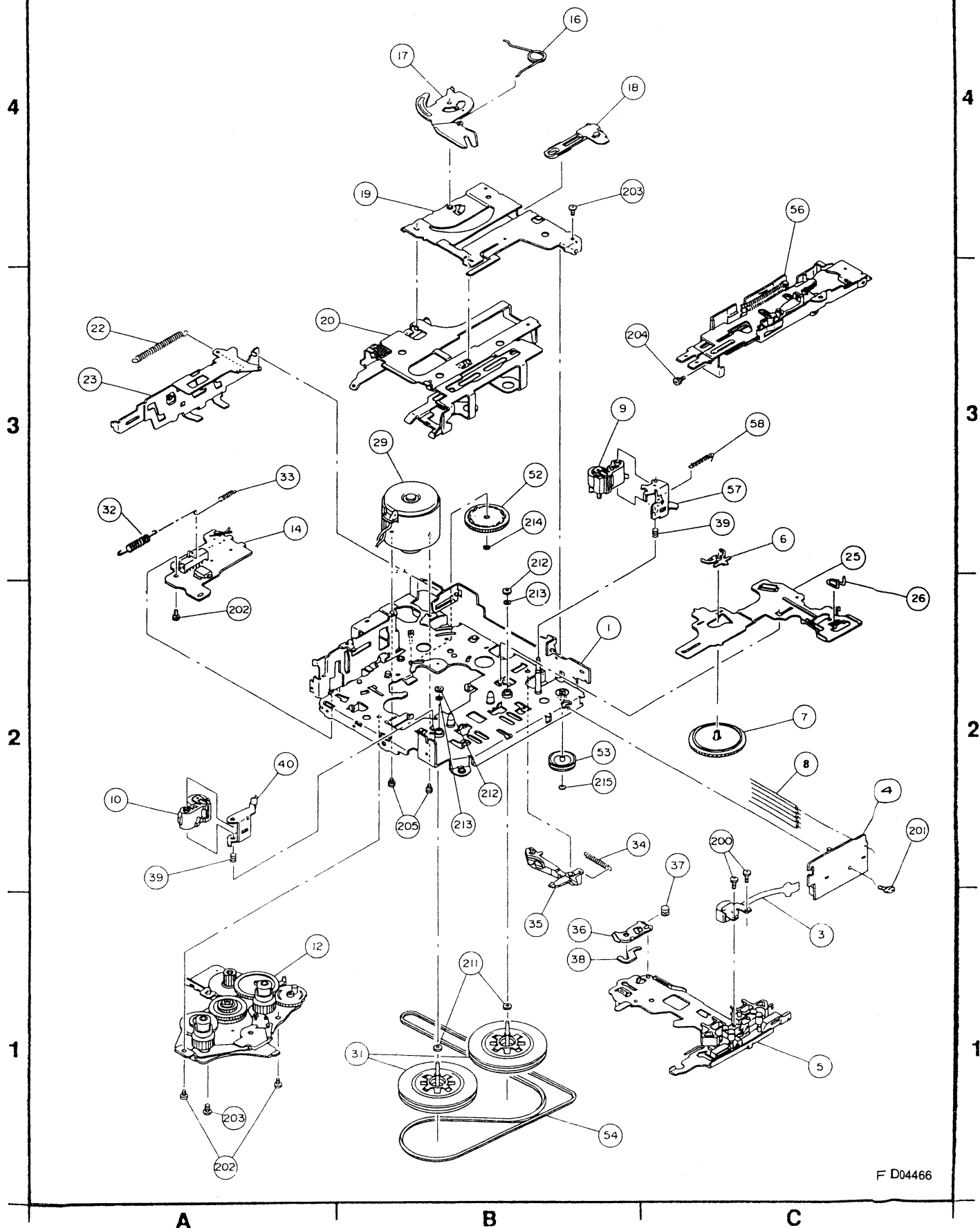
# EXPLODED VIEW (UNIT)

■ Numbers in ○ are indicated REF. No. in the REPLACEMENT PARTS LIST



## EXPLODED VIEW (TAPE PLAYER PARTS)

■ Numbers in ○ are indicated REF. No. in the REPLACEMENT PARTS LIST



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